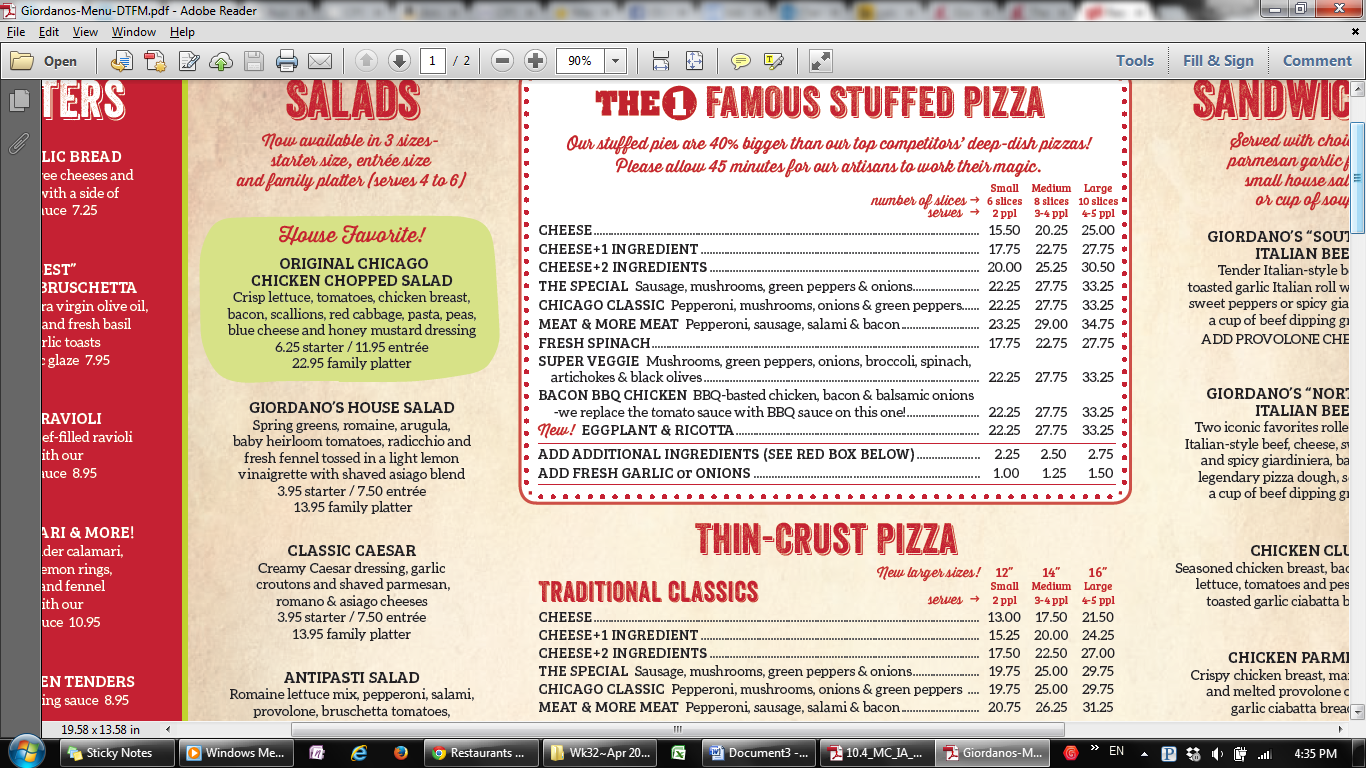
**Pizza Extra Credit Instructions**

No measures… won’t work!  
*(…unless I call them to ask the diameter of each size in inches. Make sure you circle the phone number & explain if you do this.)*

**Due**: turned in at the front before school on Friday (interim day).

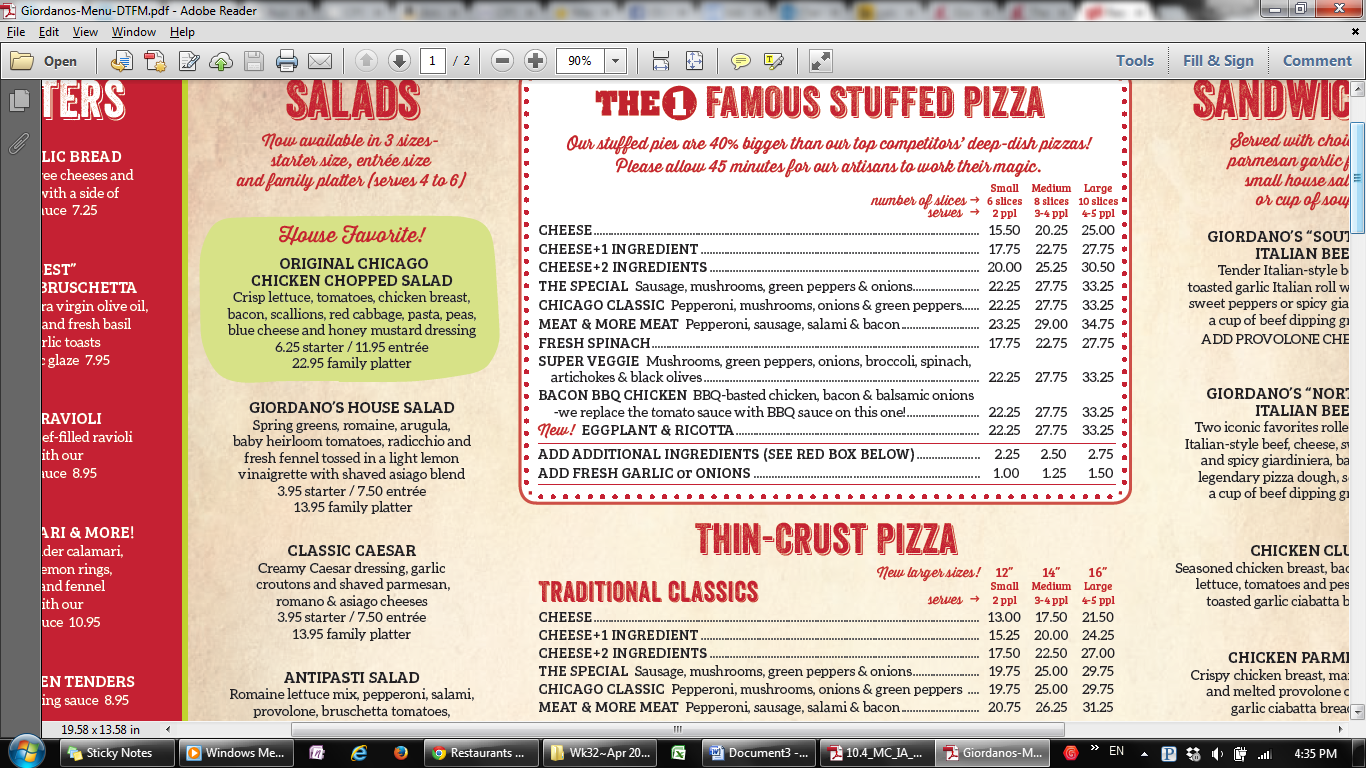
You must staple the menu of your favorite pizza place to the back of your extra credit. (A printed online menu is fine.)

\* *Note: the pizza place must have at least 3 different sizes, each with measures (usually in inches). See the example below:*

**Mr. T-G & Mr. B’s favorite (Giordano’s!)**

***Directions****: Show all work clearly for each problem, then answer in a complete sentence (ex: The area of the small 12” pizza is \_\_\_\_\_\_, the medium 14” pizza is…). Underline the number values and don’t forget units!*

12” means 12 inches (the pizza diameter)… that works!

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**Calculate**:

1. Find the area of 3 sizes of cheese pizza. Would you get more pizza ordering two small pizzas or one large pizza? How much?
2. How much pizza per dollar do you get for each size (in square inches)? Which pizza is the best value?
3. Assuming the pizza is circular, how large must a square box be to hold the largest pizza you used (include side length & area)?
4. The pizza place wants to include ads in the cardboard of the pizza box that is visible when the pizza is in it. How much space is left uncovered on the pizza box (again, just for the largest pizza)?
5. What is the circumference of the largest pizza? If it is cut into 8 equal pieces, what would the length of the crust be?
6. If the smallest pizza was decreased in area by 20% to make a kid’s sized pizza, what would the new area be? What would the diameter of this pizza be?
7. What percentage smaller is the smallest pizza than the largest (in area)? (If you do this right, when you multiply your percentage times the area of the largest pizza, then subtract this number from the largest size, you’ll get the smallest size.)
8. The company wants to make a party pizza that has double the diameter of the large pizza. If the diameter is doubled, the ratio of diameters in the Giordano’s example above for large:party (large size to party size) would be 16”:32” which simplifies to 1:2 (a ratio of one to two).
   1. Calculate the simplified ratio of the circumference of the large pizza to the party pizza.
   2. Calculate the simplified ratio of the area of the large pizza to the party pizza.
9. The company is considering making square pizzas but wants to keep the same prices for the same amount of pizza as they currently have. What would the side-length of the smallest pizza be to achieve this?
10. The pizza owner wants to measure this new square pizza by the distance across (since this makes it seem larger than just the side length… he’s a little shady). Use two methods, one using trig ratios and one non-trig, to find the diagonal of the square pizza.

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